

Model SFET Series

Lead-Free Supply Fixture Based On
The ET71 Series Mixing Valves

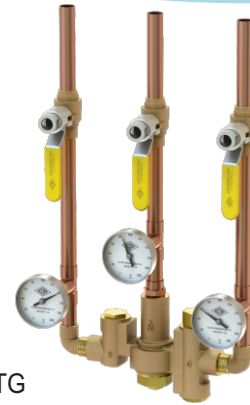


APPLICATION:

The Acorn SFET Series Emergency Tempering Valve Supply Fixtures are "Lead Free" and designed to deliver safe tepid water to safety systems such as eye, face and shower fixtures and combination units. It's factory set to 85° F to insure comfort when used with an eye wash, yet can be safely set up to 95° F for maximum comfort and effectiveness when used with body washes. The SFET Supply Fixture is offered in 4 models/sizes so you can meet the needs of your application based on minimum flow performance requirements and maximum flow demands. This supply fixture can be used to control the temperature of recirculating as well as non-recirculating supply systems.

FEATURES:

- ◆ Lead-Free sweated assembly featuring a brass mixing valve containing corrosion resistant internal components.
- Integral checks with screens to prevent backflow and to filter debris from entering the valve.
- On demand internal cold water bypass ensures the flow of cold water in the event of loss of hot water.
- Valve effectively shuts down flow when cold water supply is lost*.
- Temperature adjustment is made using a allen wrench. A locknut on the bonnet prevents unauthorized or accidental temperature adjustment.
- Commercial quality paraffin actuator provides repeatable, reliable performance.
- Temperature gauge on outlet is standard, and optionally available for supply inlets.
- Includes lockable brass ball valves on inlet and outlet connections.
- Factory assembled and pneumatically tested to 80 psi (556 kpa).



SFET-1-T-OT-ITG

Patent Pending



SPECIFICATIONS:

Valve Specifications:

Maximum Operating Pressure: 125 psi (861 kpa)
 Maximum Hot Water Supply Temp: 180°F (82°C)
 Outlet Temp. Range: 60-95°F (15-35°C)
 (ET71-4 Only)..... 60-90°F (15-32°C)
 Minimum Hot Water Supply 5°F (3°C)
 Above Set Point

Certified Minimum Flow*:

ET71-1 0.5 gpm (1.9 lpm)
 ET71-2 1 gpm (3.8 lpm)
 ET71-3 2 gpm (7.6 lpm)
 ET71-4 3 gpm (11.4 lpm)

GPM (LPM) FLOW RATES @30 PSID*			
MODEL	TEMPERED	CW BY-PASS	CW FAILURE MAX.
ET71-1	9.8 (37.1)	6.5 (24.5)	0.5 (1.9)
ET71-2	35.1 (133)	25 (94.6)	1 (3.8)
ET71-3	70.2 (256.7)	60 (227)	1 (3.8)
ET71-4	110 (114.4)	80 (302.8)	1 (3.8)

(†) For ET71-4 Only

* In accordance to ASSE 1071 as certified by IAPMO

◆ The wetted surface of these valves contacted by consumable water contains less than 0.25% of lead by weight in conformance with national lead free law.

GUIDE SPECIFICATION:

SFET Emergency Fixture Thermostatic Mixing Valve Supply Fixtures shall be factory assembled and feature an ET71 Series mixing valve. Valve shall be IAPMO lab certified to ASSE 1071 and CSA standards. Valve shall have an on demand internal cold water bypass of at least 60% of the normal flow rate. Valve body shall be "lead-free" DZR brass body with corrosion resistant internal components. Checks and screen must be integral. The sensor will be an advance paraffin actuator with a temperature range of 60° to 95° F (16° to 35° C) or 60° to 90° (16° to 32° C) (†), factory set to 85° F (29° C) and adjustable by the safety officer. A locknut will prevent unauthorized or accidental set point changes. Shut-offs shall be lockable to prevent unauthorized or accidental closing in accordance with ANSI Z358 and ASSE 1071. Fixture shall include an outlet temperature gauge. Supply Fixture shall be Acorn Model STET - (1,2 3 or 4) _____.

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Submission # **SFET Series**
 Revised: 08/17/15

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Certifications:



ASSE 1071
 CSA B125.3



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VALVE SELECTION:

- SFET-1 Brass Valve Body With 1/2" NPT Inlet & Outlet Connections, 12 gpm (45 lpm)
- SFET-2 Brass Valve Body With 3/4" NPT Inlet & 1" NPT Outlet Connections, 43 gpm (163 lpm)
- SFET-3 Brass Valve Body With 1" NPT Inlet & 1-1/4" NPT Outlet Connections, 75 gpm (284 lpm)
- SFET-4 Brass Valve Body With 1-1/4" NPT Inlet & 1-1/2" NPT Outlet Connections, 135 gpm (510 lpm)

PIPING CONFIGURATION:

INLET:

- T Top Supply Inlet
- B Bottom Supply Inlet

OUTLET:

- OT Outlet Top
- OB Outlet Bottom
- OSL Outlet Side, Left
- OSR Outlet Side, Right

VALVE OPTIONS:

- ITG Inlet Temperature Gauges, Hot & Cold

OPTIONAL CABINET:

STYLE

- RC Recessed Cabinet
- SMC Surface Mounted Cabinet

FINISH

- PRC Prime Coat Finish (16 Gage Mild Steel)
- SSTL Stainless Steel (18 Gage Type 304)

DOOR OPTIONS

- DRS Solid Door
 - DRV Door Viewport
- Must Specify: Hinge Location
- L Left
 - R Right

SFET-Series Revised: 08/17/15

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Acorn Controls warrants that its products are free from defects in material or workmanship under normal use and service for a period of one year from date of shipment. Acorn's liability under this warranty shall be discharged solely by replacement or repair of defective material, provided Acorn is notified in writing within one year from date of shipment, F.O.B. City of Industry, California.

SELECTION SUMMARY & APPROVAL FOR MANUFACTURING

Model Number & Options _____ Quantity _____

Company _____

Contact _____ Title _____

Signature (Approval for Manufacturing) _____ Date _____



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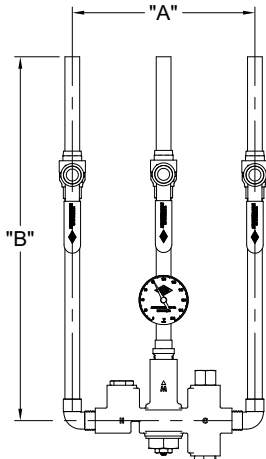
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Model SFET Series

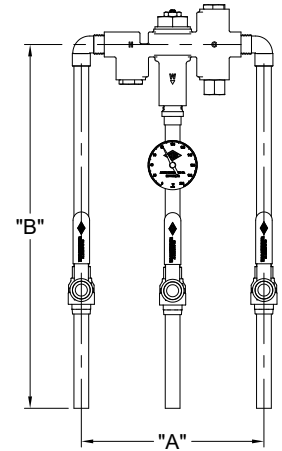
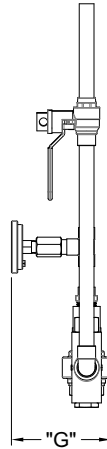
Lead Free Emergency Fixture Thermostatic
Mixing Valve Supply Fixture



TECHNICAL DIMENSIONS: LESS OPTIONAL -ITG

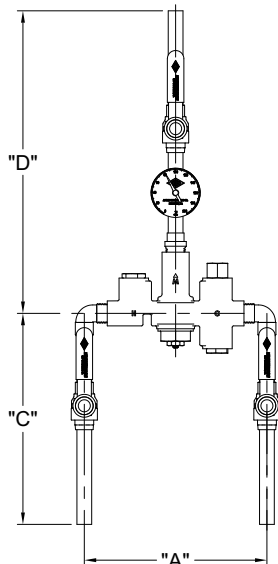


SFET-T-OT



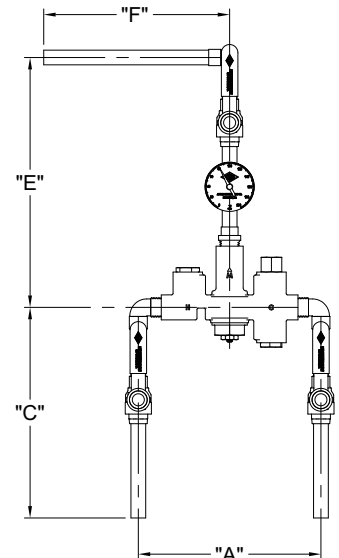
SFET-B-OB

	INLET	OUTLET	"A"	"B"	"C"	"D"	"E"	"F"	"G"
SFET-1	1/2" NCT	1/2" NCT	7-3/4" (197)	15-1/2" (394)	9" (229)	12-7/8" (327)	10-5/8" (270)	7-7/8" (200)	4-1/4" (108)
SFET-2	3/4" NCT	1" NCT	10-3/4" (273)	18-5/8" (473)	9-7/8" (251)	17" (431)	15-7/8" (403)	9-3/4" (248)	4-1/2" (114)
SFET-3	1" NCT	1-1/4" NCT	16-3/4" (425)	23" (584)	10-3/8" (264)	19-7/8" (505)	18-3/4" (476)	12-3/8" (314)	6" (152)
SFET-4	1-1/4" NCT	1-1/2" NCT	17-1/4" (438)	23-1/4" (591)	13-3/4" (349)	23-1/4" (591)	22-1/4" (565)	13" (330)	6-1/4" (159)



SFET-B-OT

	INLET	OUTLET	"A"	"B"	"C"	"D"	"E"	"F"	"G"
SFET-1 12 GPM (45 LPM)	FLOW RATE GPM (LPM)	1.8 (15)	4 (15)	5.7 (21.4)	7 (26.2)	8 (30.2)	9.8 (37)	12 (45.4)	13.8 (52.4)
	COLD WATER BYPASS ONLY						6.5 (24.5)		
SFET-2 43 GPM (163 LPM)	FLOW RATE GPM (LPM)	6.4	14.3 (54.1)	20.3 (76.8)	24.8 (93.9)	28.7 (108.6)	35.1 (132.9)	43 (162.8)	49.7 (188)
	COLD WATER BYPASS ONLY						25 (94.6)		
SFET-3 86 GPM (325.5 LPM)	FLOW RATE GPM (LPM)	12.8	28.7 (108.6)	40.5 (153.3)	49.7 (188.1)	57.3 (217)	70.2 (256.7)	86 (325.5)	99.3 (375.9)
	COLD WATER BYPASS ONLY						60 (227)		
SFET-4 135 GPM (510 LPM)	FLOW RATE GPM (LPM)	20	45 (170)	63.5 (240.4)	78 (295)	90 (340)	110 (416.4)	135 (510)	156 (590)
	COLD WATER BYPASS ONLY						80 (302.8)		



SFET-B-OSL

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Certifications:



ASSE 1071
CSA B125.3



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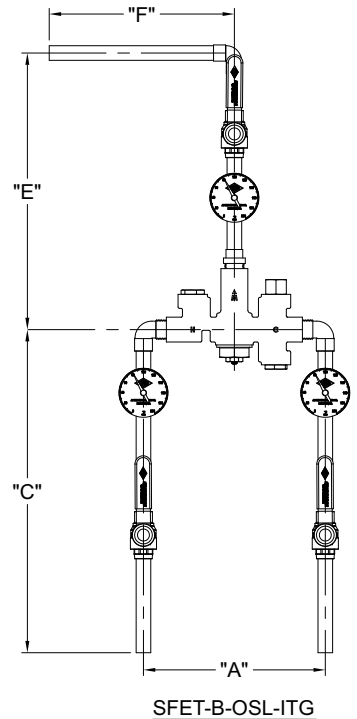
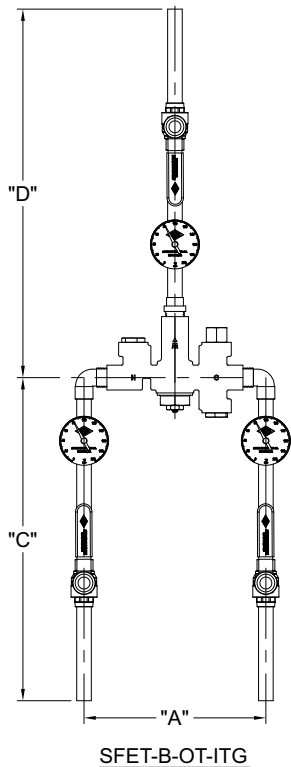
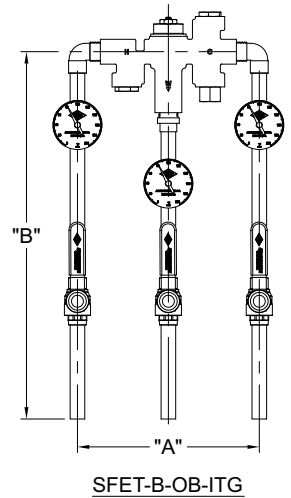
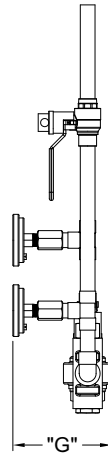
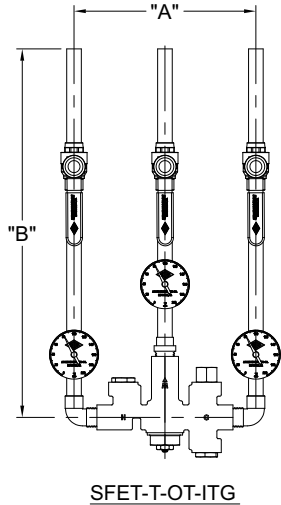
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Model SFET Series

Lead Free Emergency Fixture Thermostatic
Mixing Valve Supply Fixture



TECHNICAL DIMENSIONS: WITH OPTIONAL -ITG



	INLET	OUTLET	"A"	"B"	"C"	"D"	"E"	"F"	"G"
SFET-1	1/2" NCT	1/2" NCT	7-3/4" (197)	15" (381)	13" (330)	12-7/8" (327)	10-5/8" (270)	7-7/8" (200)	4-1/4" (108)
SFET-2	3/4" NCT	1" NCT	10-3/4" (273)	18-5/8" (473)	15-5/8" (397)	17-1/8" (435)	15-3/4" (400)	9-5/8" (244)	4-7/8" (124)
SFET-3	1" NCT	1-1/4" NCT	16-3/4" (425)	23" (584)	17-1/2" (446)	19-7/8" (505)	18-3/4" (476)	12-5/8" (321)	6" (152)
SFET-4	1-1/4" NCT	1-1/2" NCT	17-1/4" (438)	23" (584)	17-7/8" (454)	23-1/8" (587)	22-1/4" (565)	13" (330)	6-1/4" (159)

	INLET	OUTLET	"A"	"B"	"C"	"D"	"E"	"F"	"G"
ET71-1 12 GPM (45 LPM)	PRESSURE DROP PSID (KPA)	CV	5 (34)	10 (69)	15 (103)	20 (138)	30 (207)	45 (310)	60 (414)
	FLOW RATE GPM (LPM)	1.8	4 (15.1)	5.66 (21.4)	6.9 (26.1)	8 (30.2)	9.8 (37.1)	12 (45.4)	13.9 (52.6)
COLD WATER BYPASS ONLY							6.5 (24.5)		
ET71-2 43 GPM (163 LPM)	FLOW RATE GPM (LPM)	6.4	14.3 (54.1)	20.3 (76.8)	24.8 (93.9)	28.7 (108.6)	35.1 (132.9)	43 (162.8)	49.7 (188)
	COLD WATER BYPASS ONLY							25 (94.6)	
ET71-3 86 GPM (325.5 LPM)	FLOW RATE GPM (LPM)	12.8	28.7 (108.6)	40.5 (153.3)	49.7 (188.1)	57.3 (217)	70.2 (265.7)	86 (325.5)	99.3 (375.9)
	COLD WATER BYPASS ONLY							60 (227)	
ET71-4 135 GPM (510 LPM)	FLOW RATE GPM (LPM)	20	45 (170)	63.5 (240.4)	78 (295)	90 (340)	110 (416.4)	135 (510)	156 (590)
	COLD WATER BYPASS ONLY							80 (302.8)	

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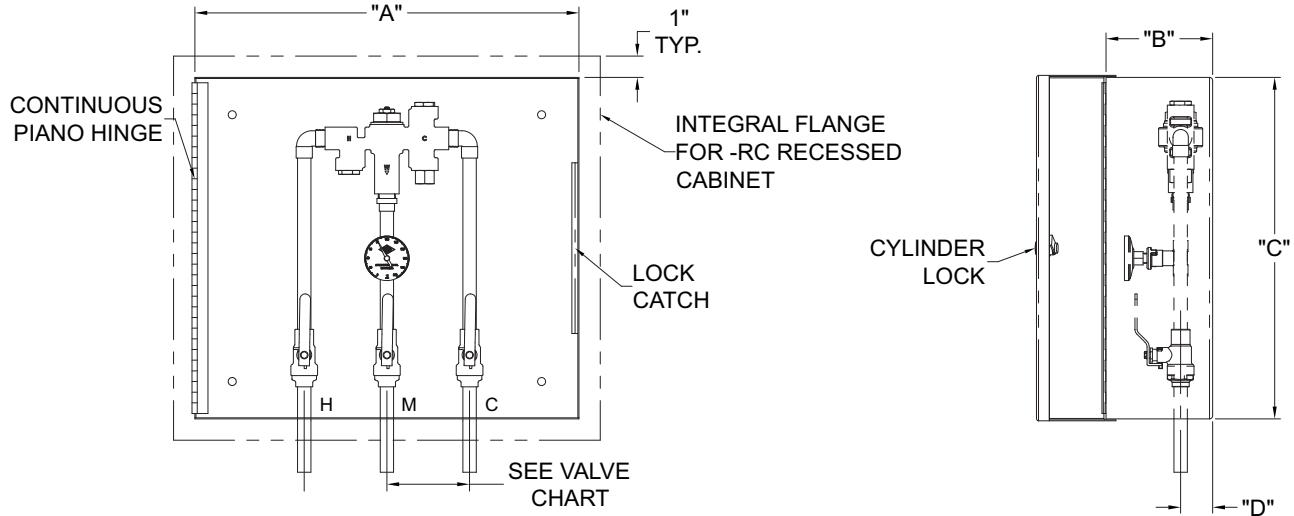
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Model SFET Series Cabinet

Emergency Fixture Thermostatic Mixing Valve Supply
Fixture Cabinets



TECHNICAL DIMENSIONS: LESS OPTIONAL -ITG



CABINET SHOWN LESS DOOR FOR CLARITY

SFET-1					
INLET	OUTLET				
1/2" NCT	1/2" NCT				
CONFIGURATION	"A"	"B"	"C"	"D"	
TOP/TOP BOT/BOT	15" (380)	5-1/2" (140)	17" (430)	1-3/4" (45)	
BOTTOM TOP	15" (380)	5-1/2" (140)	18" (455)	1-3/4" (45)	
BOTTOM TOP/SIDE	14" (355)	5-1/2" (140)	19" (480)	1-3/4" (45)	

SFET-2					
INLET	OUTLET				
3/4" NCT	1" NCT				
CONFIGURATION	"A"	"B"	"C"	"D"	
TOP/TOP BOT/BOT	21" (535)	5-1/2" (140)	22" (560)	2" (50)	
BOTTOM TOP	21" (535)	5-1/2" (140)	24" (610)	2" (50)	
BOTTOM TOP/SIDE	18-1/2" (470)	5-1/2" (140)	26" (660)	2" (50)	

SFET-3					
INLET	OUTLET				
1" NCT	1-1/4" NCT				
CONFIGURATION	"A"	"B"	"C"	"D"	
TOP/TOP BOT/BOT	28-1/2" (725)	7-5/8" (195)	30" (760)	3-1/2" (90)	
BOTTOM TOP	28-1/2" (725)	7-5/8" (195)	29-1/2" (750)	3-1/2" (90)	
BOTTOM TOP/SIDE	28-1/2" (725)	7-5/8" (195)	29" (735)	3-1/2" (90)	

SFET-4					
INLET	OUTLET				
1-1/4" NCT	1-1/2" NCT				
CONFIGURATION	"A"	"B"	"C"	"D"	
TOP/TOP BOT/BOT	30-1/2" (775)	7-5/8" (195)	30" (760)	3-1/2" (90)	
BOTTOM TOP	30-1/2" (775)	7-5/8" (195)	33" (840)	3-1/2" (90)	
BOTTOM TOP/SIDE	30-1/2" (775)	7-5/8" (195)	37" (940)	3-1/2" (90)	

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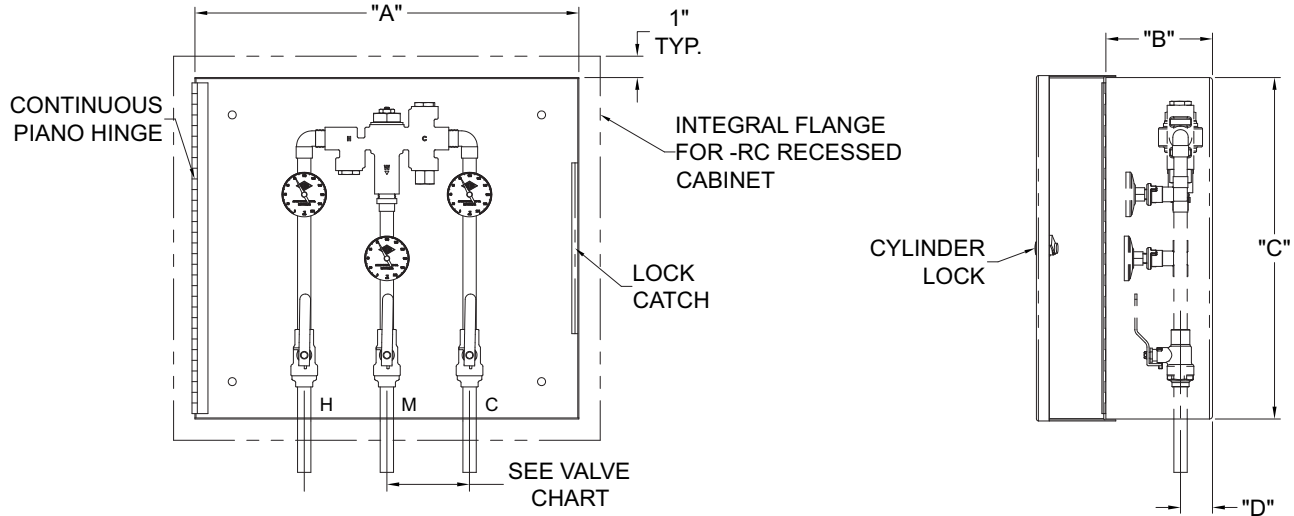
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Model SFET Series Cabinet

Emergency Fixture Thermostatic Mixing Valve Supply
Fixture Cabinets



TECHNICAL DIMENSIONS: WITH OPTIONAL -ITG



CABINET SHOWN LESS DOOR FOR CLARITY

SFET-1					
INLET	OUTLET				
1/2" NCT	1/2" NCT				
CONFIGURATION	"A"	"B"	"C"	"D"	
TOP/TOP BOT/BOT	15" (380)	5-1/2" (140)	17" (430)	1-3/4" (45)	
BOTTOM TOP	15" (380)	5-1/2" (140)	23" (585)	1-3/4" (45)	
BOTTOM TOP/SIDE	15" (380)	5-1/2" (140)	23" (585)	1-3/4" (45)	

SFET-2					
INLET	OUTLET				
3/4" NCT	1" NCT				
CONFIGURATION	"A"	"B"	"C"	"D"	
TOP/TOP BOT/BOT	21" (535)	5-1/2" (140)	22" (560)	2" (50)	
BOTTOM TOP	21" (535)	6" (150)	30" (760)	2-1/4" (60)	
BOTTOM TOP/SIDE	21" (535)	6" (150)	31" (790)	2" (50)	

SFET-3					
INLET	OUTLET				
1" NCT	1-1/4" NCT				
CONFIGURATION	"A"	"B"	"C"	"D"	
TOP/TOP BOT/BOT	28-1/2" (725)	7-5/8" (195)	30" (760)	3-1/2" (90)	
BOTTOM TOP	28-1/2" (725)	7-5/8" (195)	36-1/2" (930)	3-1/2" (90)	
BOTTOM TOP/SIDE	28-1/2" (725)	7-5/8" (195)	36" (915)	3-1/2" (90)	

SFET-4					
INLET	OUTLET				
1-1/4" NCT	1-1/2" NCT				
CONFIGURATION	"A"	"B"	"C"	"D"	
TOP/TOP BOT/BOT	30-1/2" (775)	7-5/8" (195)	30" (XXX)	3-1/2" (90)	
BOTTOM TOP	30-1/2" (775)	7-5/8" (195)	37" (940)	3-1/2" (90)	
BOTTOM TOP/SIDE	31-1/2" (800)	7-5/8" (195)	37" (940)	3-1/2" (90)	

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